

Notice of Allowability

Application No.

10/614,596

Examiner

Jack Dinh

Applicant(s)

YAMAGUCHI, SUSUMU

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 07/07/03.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☒ The drawings filed on 07 July 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Georgia Epps
Supervisory Patent Examiner
Technology Center 2800

REASONS FOR ALLOWANCE

1. Claims 1-21 are allowed. The following is a statement of the examiner's reasons for allowance. The present invention relates to an image pickup lens preferably as an optical system of a solid state pickup element. Regarding independent claim 1, the prior art fails to disclose an image pickup lens comprising four lenses wherein the first lens has positive refractive power and has a convex surface facing toward the object side, the second lens has the positive refractive power, the third lens has negative refractive power and has a concave surface facing toward the object side to be formed in a meniscus shape, and the fourth lens has the positive or negative refractive power and has a convex surface facing toward the object side to be formed in the meniscus shape. Regarding independent claim 11, the prior art fails to disclose that an image side surface of the fourth lens satisfies the conditional formula $X - X_o < 0$, where X is a displacement value of an aspherical surface and X_o is a displacement value of a rotational quadratic surface component of the aspherical surface. Regarding independent claim 18, the prior art alone or in combination fails to disclose an image pickup unit comprising, *inter alia*, a solid-state image pickup element having a photoelectric transfer unit, an image pickup lens, a substrate, a casing, wherein the length of the image pickup unit in a direction of an optical axis of the image pickup lens is not more than 15 mm and the image pickup lens comprises four lenses with the lens arranged nearest to the object side has the positive refractive power. The claimed invention is therefore considered to be in condition for allowance as being novel and non-obvious over prior art.

Art Unit: 2873

2. The prior art taken either singly or in combination fails to anticipate or fairly suggest the limitations of the independent claims, in such a manner that a rejection under 35 USC 102 or 103 would be improper. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Other Information/Remarks

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Isono (U.S. Patent 6,744,570), and Tanaka (U.S. Patent 5,739,966) disclose lens systems comprising four lenses wherein the first lens has a positive refractive power.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack Dinh whose telephone number is 571-272-2327. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2873 .

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jack Dinh


Georgia Epps
Supervisory Patent Examiner
Technology Center 2800